

Abstract of the Disclosure

1 ✓ The present invention relates to an optical filter comprising an integrated wavelength
10 ✓ dispersive element having an input for providing temperature compensation, particularly
5 ✓ for providing passive temperature compensation in an arrayed waveguide grating. The
13 ✓ present invention has found that by providing an arrayed waveguide grating having a
15 ✓ thermally responsive pivotal input structure for changing an angle of a collimated input
17 ✓ signal launched into a focusing lens, the input point can be selected in response to
19 ✓ changing temperature in order to compensate for thermal drift of the center wavelength.
21 ✓ Further, the present invention has found that by providing a reflective lens assembly for
23 ✓ focusing an input signal at a selected input point of the input planar waveguide,
25 ✓ alignment and tuning of an input and assembly can be improved and simplified. As an
27 ✓ additional advantage, variable coupling parameters can be incorporated into a reflective
29 ✓ coupling including input position, waveguide taper and planar waveguide length
31 ✓ increment to provide relatively simple tuning in an integrated device.